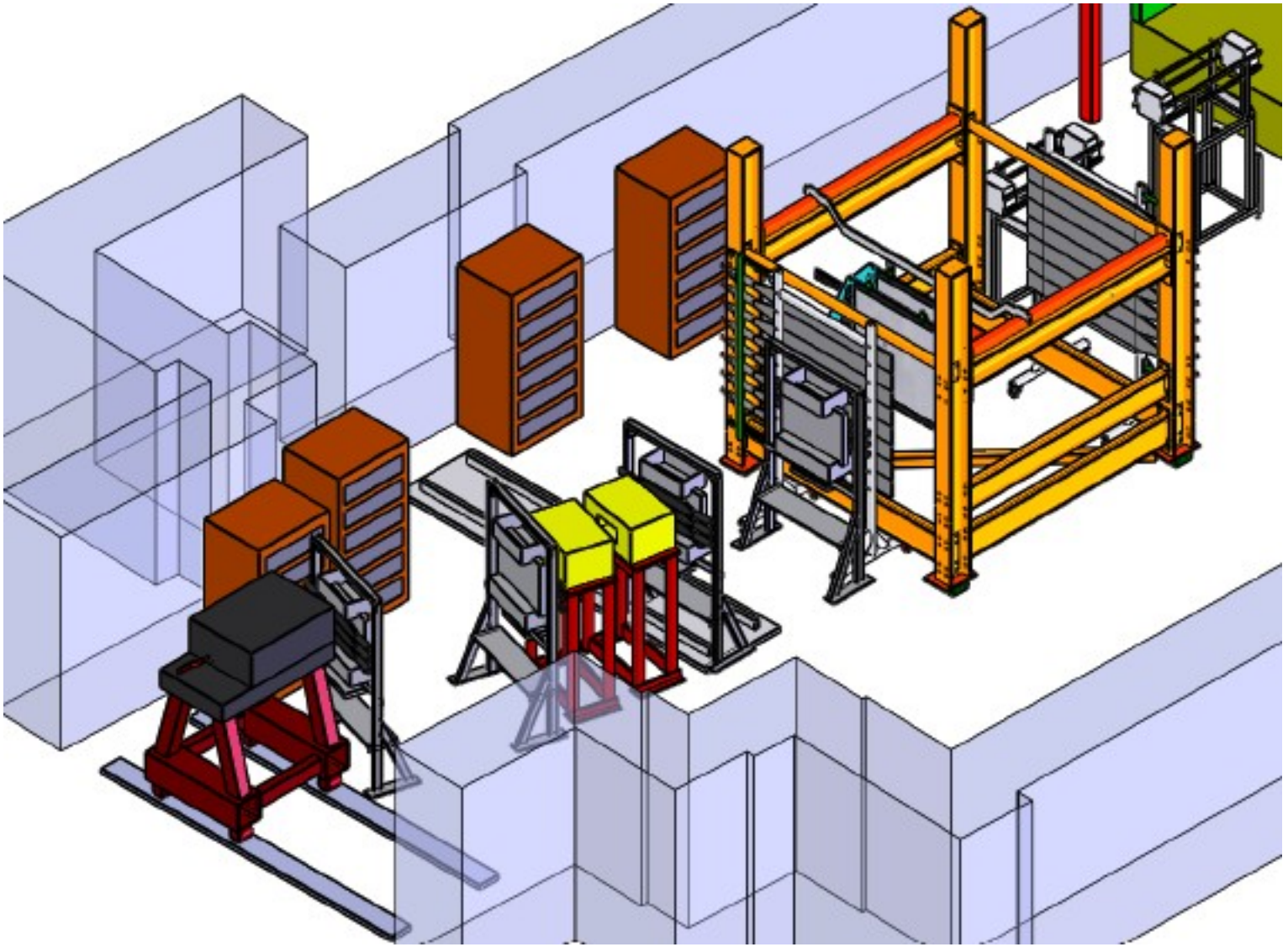
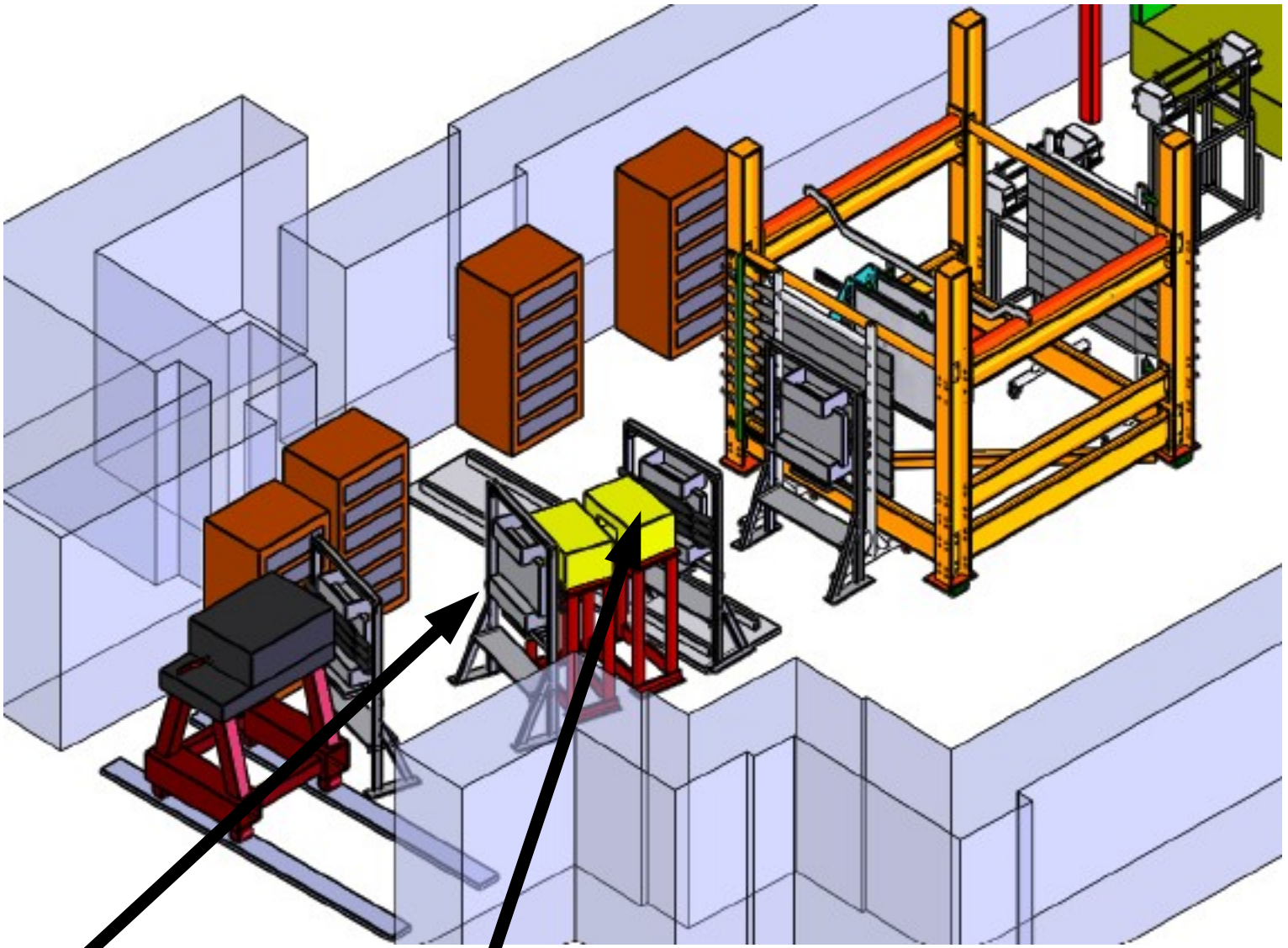
New low energy beamline for MINERvA's T977



CAD drawing by R. Flight, U Rochester

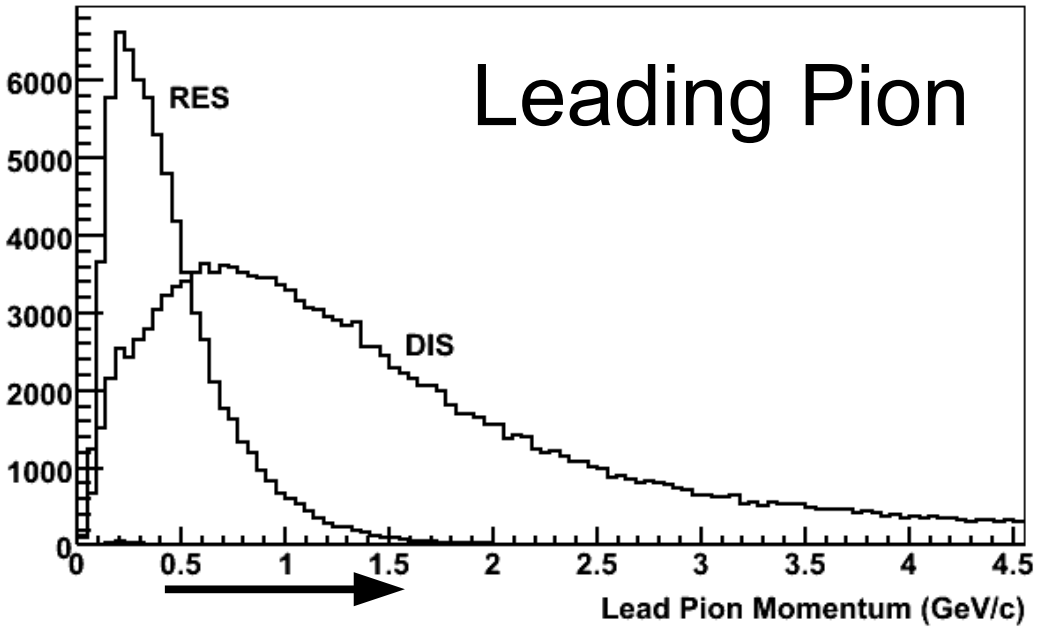


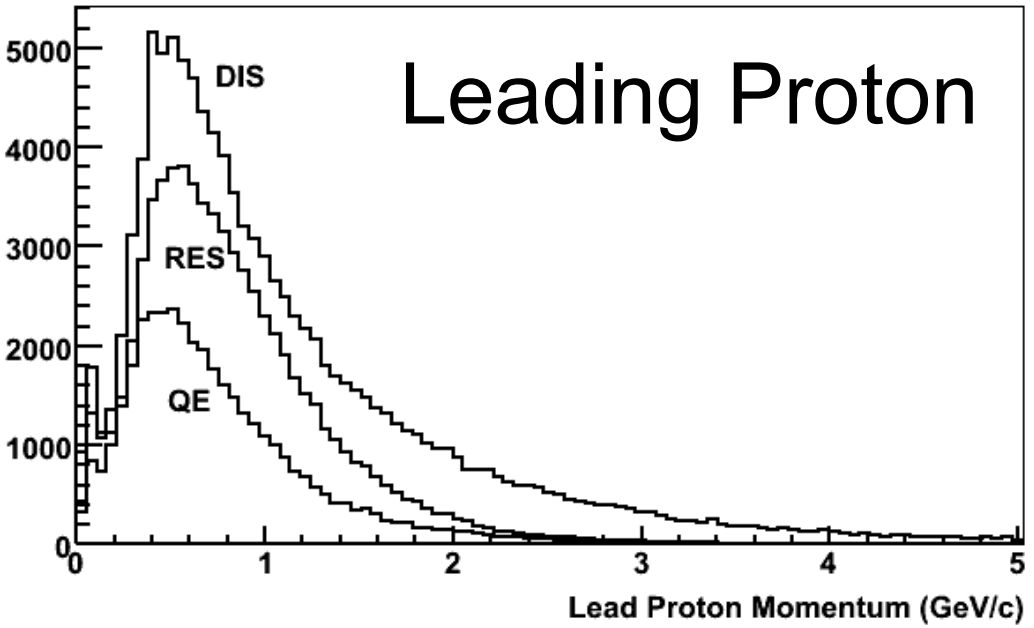
Magnets Installed, connected, ORC Wire Chambers in Lab 6. Two ready, two to go.

Reminder of MINERvA's physics goals for T977

Our detector's response to pions and protons

Pion and proton spectrum from neutrino interactions





hadronic interactions in pion beam
likely above 300 MeV/c

Goals for a November beamline commissioning

Operate the beamline with all the components
(except the MINERvA test detector)

Collect >3500 analyzable pions
in momentum range 300 MeV/c to 1500 MeV/c
(50 pions in each 10 MeV/c momentum slice)

Use that sample to determine that we can achieve
the accuracy and resolution that we need,
or determine what additional adjustments to make.

Proposed schedule for November

22-25 Oct (Th-Sat)	MINERvA collab meeting at FNAL
27-31 Oct (M-F)	Advanced staging outside hall. (And evening prep if possible.)
2 Nov (Mon)	120 GeV beam request for TOF
3-6 Nov (Tue-Fri)	Open Hall, crane for WC install and first cable-up time. No beam.
7-8 Nov (Sat/Sun)	16 GeV beam to secondary target
9-15 Nov (M-Sun)	Continue electronics shakedown access, beam, source testing.
16-22 Nov (M-Sun)	Steady run in 16 GeV beam
23-25 Nov (M-Wed)	More 16 GeV beam if needed.

Proposed schedule for November

Opportunities for other users

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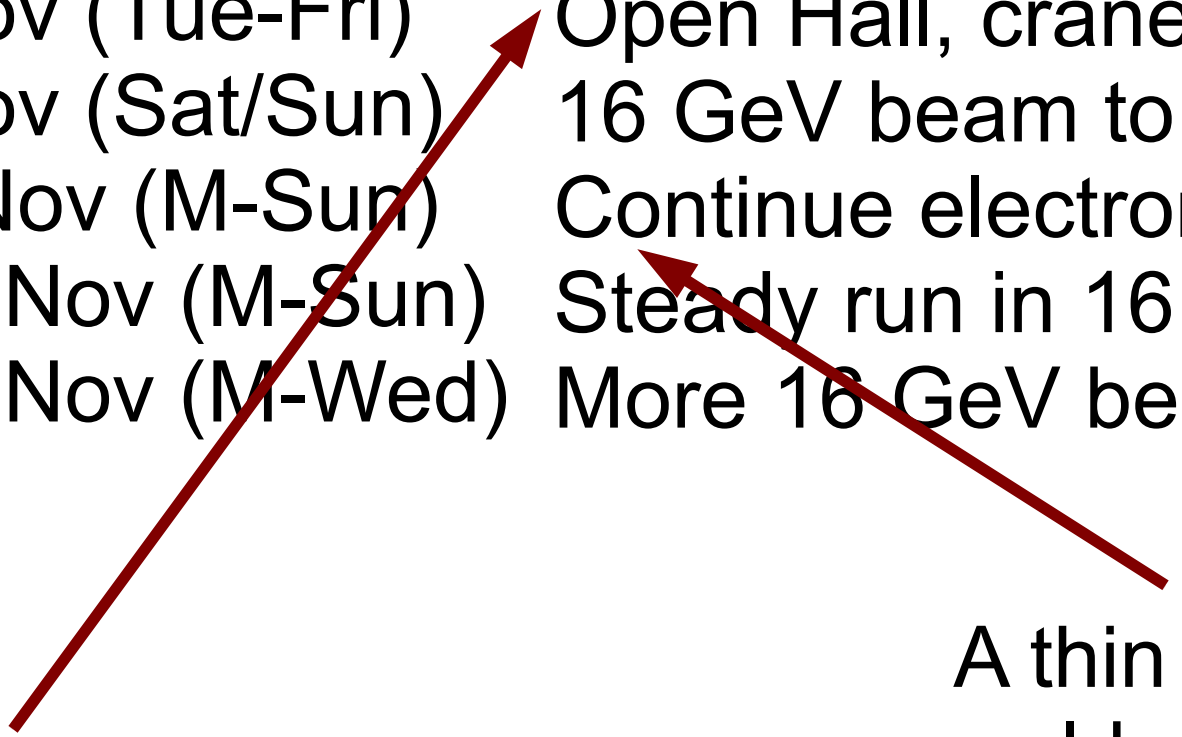

We're here in the daytime.
another user takes beam overnight?

A thin upstream user
could share 16 GeV pi

Related Activities: Magnet Mapping

Zeynep Isvan (Ph.D. student at Pittsburgh) will become the MINERvA magnet mapping expert, with participation from D. Naples, R. Gran, L. Patrick.

Doug Jensen will lead us through the steps, early next week, if all the parts come together.

We expect two or three mapping cycles minimum are needed to get to where we want to be.

Discussion point:
anything special needed to enable us to operate in the evening, when other users are done?
And of course coordination with those other users.

Related Activities: TOF tuning

I've requested one day, 120 GeV protons,
with our target out, is the minimum need
for tuning thresholds and HV for TOF PMTs.

But we plan to put a new student on this.

If another user is running 120 GeV protons,
or some other reasonable setting
we would like the luxury of
running scintillator in their shadow
so the student can come up to speed smoothly.

Let us know if such opportunities are available
in September and October.

Related Activities: detector arrival

The first detector plane (mechanical prototype) arrives this week from Virginia.

We expect several planes by the end of October, and steady production (two per week) into early 2010.

If that plan holds, we will start commissioning with cosmic muon trigger when the November activity has settled down some.

(Want to, but not sure if we can accelerate that depends on too many things, people, going right.)

Related Activities: list of other stuff

Must schedule alignment and crane operator, review continued WC ORC

MTest DAQ set for November already (L. Patrick)

Muon trigger and stand coming along (R. Napora)

Two or three new students arriving from Brazil, Peru